

## PROJECT DESCRIPTION

## I. GENERAL

This project involves the installation of two Hazard Identification Beacons along MD 185 (Connecticut Ave) to alert motorists of pedestrians. The H.I.B. for northbound traffic shall be installed approximately 145' south of the intersection of MD 185 (Connecticut Ave) and MD 191 (Bradely Lane) and interconnected to the existing signal at MD 191. The H.I.B. for southbound traffic shall be installed approximately 640' south of the intersection of MD 185 (Connecticut Ave) and MD 410 (East West Hwy) and is to be interconnected to the existing signal at MD 410.

This project involves the installation of two Hazard Identification Beacons along MD 185 (Connecticut Ave) to alert motorists of pedestrians. A pedestal mounted H.I.B. for northbound traffic shall be installed approximately 145' south of the intersection of MD 185 (Connecticut Ave) and MD 191 (Bradely Lane) and wired to the existing controller at the intersection. A mast arm mounted H.I.B. for southbound traffic shall be installed approximately 640' south of the intersection of MD 185 (Connecticut Ave) and MD 410 (East West Hwy) and is to be interconnected to the existing signal at MD 410.

1 A pole-mounted "G" size cabinet shall be installed on each H.I.B. the H.I.B. located 640' south of MD 410 (East West Hwy).

## II. INTERSECTION OPERATION

## 1. NORTHBOUND MD 185 Hazard Identification Beacon

The Hazard Identification Beacons shall flash continuously from 7:00 AM to 9:00 PM, 7 days a week to warn drivers of pedestrians.

## 2. SOUTHBOUND MD 185 Hazard Identification Beacon

The Hazard Identification Beacon shall flash continuously from 7:00 AM to 9:00 PM, 7 days a week to warn drivers of pedestrians. A pole mounted "G" size cabinet shall be installed with overhead interconnect to the existing controller at MD 410.

## III. SPECIAL NOTES

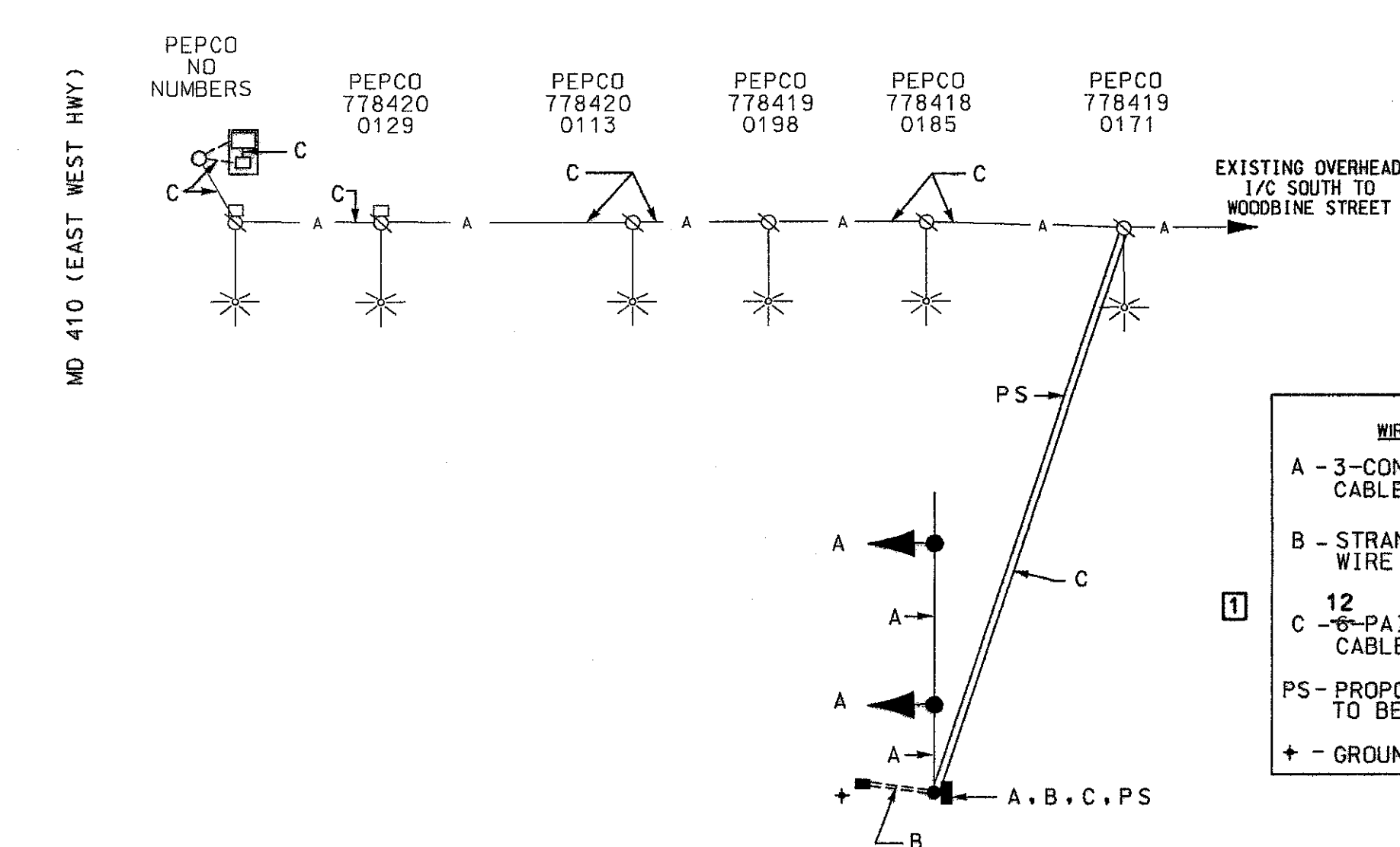
- The Contractor shall be responsible for terminating all signal cables, excluding interconnect, to the appropriate terminals and shall properly label each cable.
- Disconnecting and splicing of interconnect cable shall be performed by Montgomery County Forces. The contractor shall run the interconnect cable into the base of each the appropriate cabinet and properly tag the cable. Contact Mr. Bob Gonzales at (240) 777-8761 seventy-two hours in advance of intended work.
- All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.

## EQUIPMENT LIST

## A. EQUIPMENT TO BE SUPPLIED BY S.H.A.

ITEM NO.	DESCRIPTION	QUANTITY
9037	Cabinet "G" type - pole mount	2 EA 1 EA 1
9042	Controller ASC II with telemetry	2 EA 1 EA 1
9571	Sheet aluminum signs to consist of: (mast arm or pole mount)	64 SF 101.5 SF 1
	SPECIAL (48"x96") panel: W11-2 "PEDESTRIAN CROSSING (SYMBOLIC)" (30" x 30") with "STAY ALERT" sign	2 EA
	SPECIAL (36"x78") panel: W11-2 "PEDESTRIAN CROSSING (SYMBOLIC)" (24" x 24") with "STAY ALERT" 30 MPH sign (horizontal orientation)	1 EA
	SPECIAL (36"x72") panel: W11-2 "PEDESTRIAN CROSSING (SYMBOLIC)" (24" x 24") with "STAY ALERT" 30 MPH sign (vertical orientation)	1 EA

## WIRING DIAGRAM



WIRING KEY	
A	3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
B	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
C	12-PAIR VOICE GRADE INTERCONNECT CABLE (OVERHEAD)
PS	PROPOSED OVERHEAD SERVICE TO BE INSTALLED BY PEPCO
+	GROUND ROD

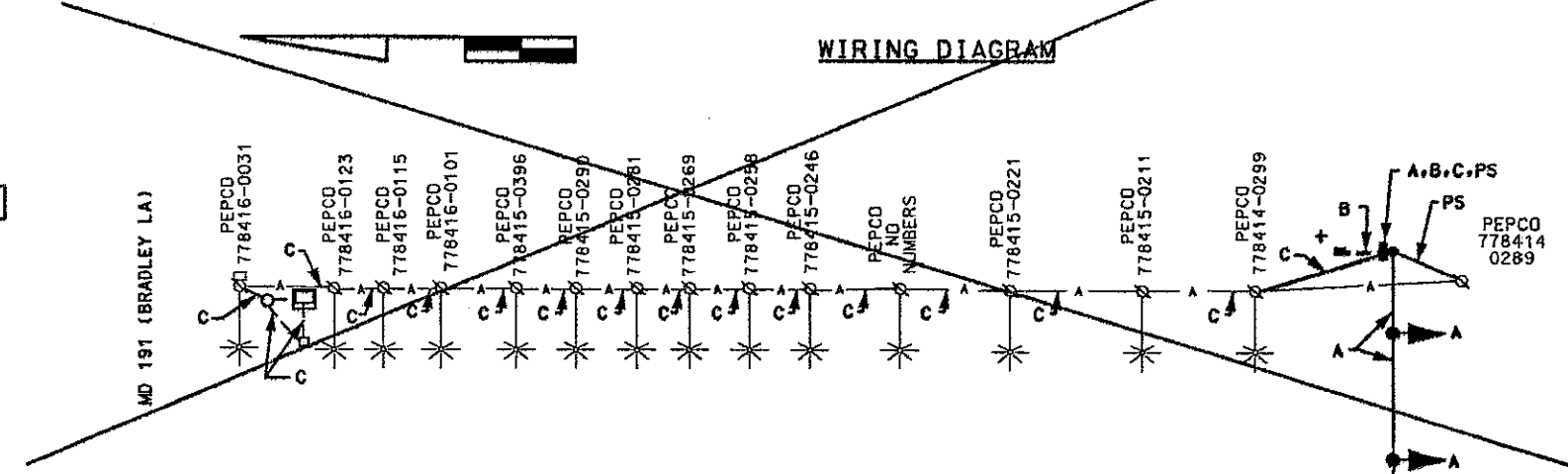
## EQUIPMENT LIST (CONT.)

## B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	2 EA
2002	Test Pit Excavation	3-2 C.Y. 1
8002	3" blind coupling for traffic signal structures, welded and galvanized.	2 EA
8006	Cut, clean, galvanize and cap traffic signal structure.	1-2 EA 1
8011	Furnish and install 12" vehicular traffic signal head section	4 EA
8015	Furnish and install 3" weatherhead.	2 EA
8020	Furnish and install electrical utility service equipment (120/240 V, 1 phase 3 wire system).	2 EA
8023	Furnish and install 27' mast arm pole and 60' (cut to 40') mast arm.	2 EA
8030	Furnish and install breakaway pedestal pole (14').	1 EA
8045	Paint structure (installed).	3-2 EA 1
8047	Remove and dispose of existing foundation 12" below grade.	1 EA
8048	Remove and dispose of existing material and equipment per assignment.	1 EA
8051	Furnish and install 3" schedule 80 rigid polyvinyl chloride conduit - trench	155-45 L.F. 1
8054	Furnish and install 12-pair communication cable, self-supporting (overhead), lash to existing 1/C cable	850-4675 L.F. 1
8057	Furnish and install concrete for signal foundation.	12-40 C.Y. 1
8060	Furnish and install No. 6 AWG stranded bare copper ground wire.	180-50 L.F. 1
8072	Furnish and install electrical handhole.	4-2 EA 1
8075	Install overhead sign.	69.5-64 S.F. 1
8080	Furnish and install ground rod 3/4" x 10'.	3-2 EA 1
8083	Furnish and install electrical cable - 3 conductor (No. 14 AWG).	260-460 L.F. 1
8092	Install controller and cabinet pole mount.	2 EA
	Neg. - Furnish and install 6-pair communication cable, lash to existing interconnect cable.	880 L.F.
	Neg. - Pull back and reroute signal cables.	25 LF
	Neg. - Delivery of existing equipment to SHA.	1 EA

## C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

ITEM NO.	DESCRIPTION	QUANTITY
8023	27' Mast arm pole with 60' mast arm.	1 EA
	SPECIAL (48"x96") panel: W11-2 "PEDESTRIAN CROSSING (SYMBOLIC)" (30" x 30") with "STAY ALERT" sign	1 EA



WIRING KEY	
A	3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
B	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
C	12-PAIR VOICE GRADE INTERCONNECT CABLE (OVERHEAD)
PS	PROPOSED OVERHEAD SERVICE TO BE INSTALLED BY PEPCO
+	GROUND ROD

The contact persons for District #3 (Montgomery County) are as follows:

Mr. Lee Starkloff  
Assistant District Engineer - Traffic  
Phone: (301) 513-7318

Mr. Raleigh Medley  
Mr. Wayne Mowdy  
Assistant District Engineer - Maintenance  
Phone: (301) 513-7304

Mr. Augie Rebish  
District Engineer - Utility  
Phone: (301) 513-7350

Mr. Richard L. Daff, Sr.  
Chief, Traffic Operations Division  
Phone: (410) 787-7630

The electrical service representative is:

Mr. Etta Hemingway  
PEPCO Customer Design  
4064 Powder Mill Road, Ste. 600  
Gallatin, Maryland 20706  
Phone: (301) 531-2880

Mr. Steve Custer  
PEPCO Customer Design  
201 W Guide Drive,  
Rockville, MD 20850  
Phone: (301) 548-4333

SEQUENCE OF OPERATION SHEET  
DIVISION OF OPERATIONS  
TRAFFIC ENGINEERING & OPERATIONS SECTION  
MONTGOMERY COUNTY, MARYLAND

INTERSECTION: MD 185 AND MD 191 (BRADLEY LA)

NO. PHASING

SIGNAL HEAD INDICATIONS					
SIGNAL NO.	4,5,6	1,2	7	8,9,10	3
TOTAL:	3	2	1	3	1
LEGEND	(R)	(Y)	(R) 8"	(R)	(R)
OPTICALLY LIMITED	(Y)	(Y)	(Y) 8"	(Y)	(Y)
R RED	(G)	(G)	(G) 8"	(G)	(G)
Y YELLOW	(G)	(G)	(G) 8"	(G)	(G)
G GREEN	(G)	(G)	(G) 8"	(G)	(G)
ARROW	(G)	(G)	(G) 8"	(G)	(G)
FLASHING	(G)	(G)	(G) 8"	(G)	(G)

SEQUENCE OF OPERATION														
SIGNAL NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL
2	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL
3	G	G	G	G	G	G	G	G	G	G	G	G	G	G
4	G	G	G	G	G	G	G	G	G	G	G	G	G	G
5	G	G	G	G	G	G	G	G	G	G	G	G	G	G
6	G	G	G	G	G	G	G	G	G	G	G	G	G	G
7	R	R	R	R	R	R	R	R	R	R	R	R	R	R
8	R	R	R	R	R	R	R	R	R	R	R	R	R	R
9	R	R	R	R	R	R	R	R	R	R	R	R	R	R
10	R	R	R	R	R	R	R	R	R	R	R	R	R	R
11	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK
12	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK
13	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK
14	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK	WK
PHASE	1 & 5	ALL RED	1 & 6	ALL RED	3	ALL RED	4	ALL RED	4	ALL RED	4	ALL RED	4	ALL RED

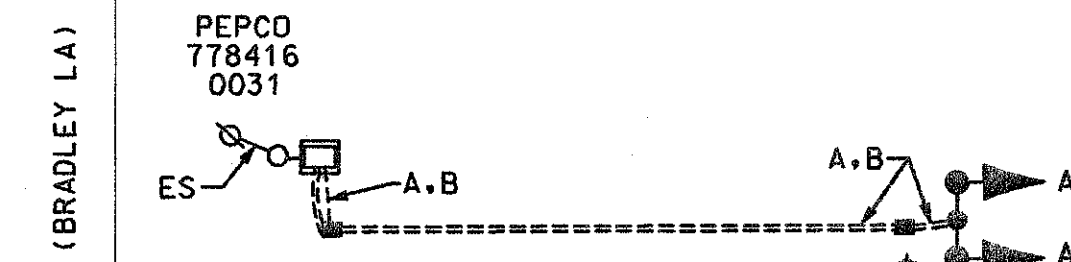
NOTES: SIGNAL HEADS 1 & 2 SHALL FLASH CONTINUOUSLY FROM 8AM - 9AM AND FROM 3PM - 4PM.

SUBMITTED: \_\_\_\_\_ CHECKED: \_\_\_\_\_ APPROVED: \_\_\_\_\_  
IN SERVICE BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

## PHASING CHART

THE SIGNALS SHALL FLASH CONTINUOUSLY FROM 7:00 AM TO 9:00 PM, 7 DAYS A WEEK

## WIRING DIAGRAM



## WIRING KEY

A - 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)  
B - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)  
ES - EXISTING OVERHEAD SERVICE TO BE MAINTAINED BY PEPCO  
+ - GROUND ROD

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION  
Office of Traffic & Safety  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 185: MD 410 TO CHEVY CHASE CIRCLE  
HAZARD IDENTIFICATION BEACON

DRAWN BY: ROB CICHINI  
CHECKED BY: William Malcolm  
SCALE: NONE  
DATE: 2-26-03  
F.A.P. NO.: XX1065485  
S.H.A. NO.: MONTGOMERY  
LOG MILE: 15018501.27/15018500.60  
TS NO.: 34  
SHEET NO.: 34 OF 34